Fixing an Excel Formula

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I have created several Excel 2000 worksheets that use the VLOOKUP formula to get information from one central worksheet. Now I need to add columns to the root worksheet, but when I do so, the VLOOKUP formulas are affected. I tried different solutions without success. Inserting columns changes the layout of the central worksheet, and the VLOOKUP formulas do not adapt.

Jim Harris

Excel will adjust cell references in formulas when you insert or delete rows or columns. For example, suppose the cell A3 contains the formula =A1/A2 and you insert a row above row 2; the formula will change to =A1/A3. The problem you're experiencing with VLOOKUP is that its column index number argument is a simple number, not a reference. To clarify the problem (and demonstrate a solution) we'll create a simple spreadsheet. In cells A1 and A2, enter the values 1 and 2. In B1 and B2, enter Jan and Feb. Select all four cells and drag the fill handle at the bottom right-hand corner of the selection downward to row 12. You should now have the numbers 1 through 12 in column A and the months Jan through Dec in column B. In cell D1 enter the formula =VLOOKUP(C1,A1:B12,2). Now enter any number from 1 to 12 in cell C1. The formula will select the corresponding month name.

To demonstrate the problem, right-click on the heading of column B and choose Insert. The formula changes to =VLOOKUP (D1,A1:C12,2), which returns 0. Excel correctly changed the cell reference from C1 to D1 and expanded the lookup range to include the inserted column, but it can't change the column index. Press Ctrl-Z to undo the column insertion.

The solution is to modify the formula so that the column index number is not hard-coded but instead is calculated from cell references. Since we want the last column, we'll use the COLUMNS function, which returns the number of columns in the passed range. The modified lookup function looks like this: =VLOOKUP (C1,A1:B12,COLUMNS(A1:B1)). Now if a column is inserted in the middle of the range, the column index will be adjusted. You can see both versions of the formula in the screenshot .

Microsoft Excel - vlookup.xls

File Edit View Insert Format Tools Data Window Help   Type a question for help

Arial   10   B I U

B1

	A	B	C	D	E	F	G	H
1	1	Jan	7	0	◄ Formula: =VLOOKUP(C1,A1:B12,2)		
2	2	Feb	Jul		◄ Formula: =VLOOKUP(C1,A1:B12,COLUMN(B1)-COLUMN(A1)+1)		
3	3	Mar					
4	4	Apr					
5	5	May					
6	6	Jun					
7	7	Jul					
8	8	Aug					
9	9	Sep					
10	10	Oct					
11	11	Nov					
12	12	Dec					

Sheet1

Reply with Changes... End Review...

Ready